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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,314	02/15/2002	Ulrich Rudel	0459-0699P	8679
2292	7590	07/01/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			SIEFKE, SAMUEL P	
			ART UNIT	PAPER NUMBER

1743

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,314

Applicant(s)

RUDEL ET AL.

Examiner

Samuel P Siefke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 13-20 and 23-27 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 10-12, 21, 22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim **25** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 25 should be directed to –The sensor—according to claim 24.

Claim **26** provides for the use of monitoring and/or characterizing two or more analytes, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim **26** is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim **27** provides for the use of monitoring and/or characterizing two or more analytes, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass.

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A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 27 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6,9, 13-20,23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 99,36760.

WO '760 discloses a method and device that uses a pin-ring deposition mechanism (page 5, 35,42,43) to deposit a liquid polymer onto a substrate having a planar surface (page 18, lines 26-34). The substrate has a planar surface (page 18, lines 26-34; page 29, lines 18-30) wherein a plurality of biochemical sensor dots are located spatially separated at predetermined positions on the planar surface (page 18, lines 1-8). The fluid polymer consist of a polymer and a component representing one or

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more biochemical recognition moieties (page 60 –61). An optical phenomenon is selected from fluorescence or surface plasma resonance (page 18, line 1-8). The substrate material comprises a base material selected from glass, plastic, silicon (page 61,64) where the thickness of the substrate ranges from 10 to 500 nm (page 62). The planar substrate is chemically modified by treatment with a bifunctional reagent containing an aminosilene to provide a positively charged surface which binds, by ionic or electrostatic forces with negatively charged deposits such as DNA (page 63 bottom). The spotting fluid comprises a polymer such as poly(vinyl alcohol) (page 64 bottom), crosslinkers, oligomers, plasticizers, polymerization initiator (page 61, 63). The biochemical recognition moieties are ionophores (page 63 bottom, modifying the surface). The spotting fluids are allowed to consolidate upon exposure to ultraviolet light (page 63 bottom). Two or more spotting fluids are sequentially deposited at a predetermined position of the planar surface and consolidation occurs after the last deposition (page 50). The sensor device comprises at least 5 different sensor dots (page 50).

Allowable Subject Matter

Claims 7, 8,10-12, 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 7 is indicated as allowable subject matter because the prior art does not teach or fairly suggest

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chemically modifying a substrate surface with a bifunctional reagent as listed in claim 7.

Claim 8 is indicated as being allowable because the prior art does not teach or fairly suggest a spotting fluid that comprises a polymer selected from the list in claim 8.

Claims 10-12 are indicated as being allowable subject matter because the prior art does not teach or fairly suggests a spotting fluid that comprises a plasticizer. Claim 21 and 22 are indicated as being allowable subject matter because the prior art does not teach or fairly suggest measuring by optical detection surface plasmon resonance, whereby the substrate material is prepared by a plastic bas material and a metal surface layer material, the sensor dots being prepared from polyvinylchloride or crosslinked acrylate comprising a plasticizer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam P. Siefke



June 21, 2004


Bill Warden
Supervisory Patent Examiner
Technology Center 1700